



## Overview and Summary of Recent Initiatives

Since the last BIO report, the Kulongoski administration adopted an “innovation state” economic strategy that includes the biosciences among other advanced sectors. In 2005 SB 838 created the **Oregon Innovation Council**, a board with grant- and loan-making powers staffed by the Oregon Economic and Community Development Department. The Innovation Council subsumes the Oregon Council on Knowledge and Economic Development, as well as a previously funded nanotechnology institute as a first example of a series of anticipated **Signature Research Centers**. The council is charged to develop a full innovation plan for the state during 2006. Related legislation enables the state’s public universities to self-finance funds for precommercialization research.

## Building Bioscience R&D Capacity

### Recent state investments in facilities

Recently constructed bioscience facilities include the **Biomedical Research Building**, a 274,000-square-foot, 11-story, \$113.4 million building financed by general obligation bonds at the Oregon Health and Science University (OHSU) in Portland.

### Research programs

The Oregon Innovation Council is charged to support a series of **Signature Research Centers**, starting with the Oregon Nanoscience and Microtechnology Initiative (ONAMI), which has a small bio-nano component. Follow-on centers have not yet been determined.

## Moving Technology into the Marketplace

### Commercializing university technology

SB 853 directs the state treasurer to establish **University Venture Development Funds** that will pay for precommercialization research and other entrepreneurial programs at the Oregon University System (OUS) institutions and OHSU. In a technique that has been used before in Oregon, these funds will be capitalized by donations from taxpayers who may take a 60 percent tax credit up to \$50,000 over 3 years. Donations are unlimited, but the overall credit pool is capped at \$10 million for OUS institutions and \$4 million for OHSU. The institutions will pay the treasurer 20 percent of commercialization revenues until the total amount of tax credits granted has been reimbursed.

## Supporting bioscience entrepreneurs and emerging companies

Portland State University (PSU) is the lead organization for **Lab2Market**, a commercialization program in the School of Business Administration funded by the NSF Partnerships for Innovation Program. The 3-year, \$600,000 program will provide mentoring for start-up companies and facilitate the commercialization of university-developed technologies coming out of OHSU, the University of Oregon, and other research institutions in the state in addition to PSU. Lab2Market has a goal of launching 12 new companies in 3 years.

## Making Capital Available

### Pre-seed and seed capital

The Oregon Innovation Fund legislation authorizes grants or loans to private businesses for commercialization activity. This program is not yet funded.

### Venture capital

The **Oregon Growth Account** in the state treasurer's office invests proceeds from the Oregon Lottery for the benefit of the Education Stability Fund in venture funds that commit to local investment activity. The Growth Account seeks to earn a rate of return, but "economic development may be a byproduct." Since the last BIO report, the board invested \$10 million with **Cascadia Partners** of Portland, joining the following previous investments in venture funds that consider bioscience deals in the Northwest:

- **Fluke Venture Partners** (\$2 million from the fund)
- **Northwest Technology Ventures** (\$14 million from the fund)
- **Pacific Horizons Ventures** (\$2 million from the fund).

## Providing Space for Bioscience Companies

### Bioscience research parks

**Riverfront Research Park** is a 67-acre research park at the University of Oregon along Willamette River in Eugene. To date one-quarter of an anticipated 1 million square feet of space is built out.

## Contacts

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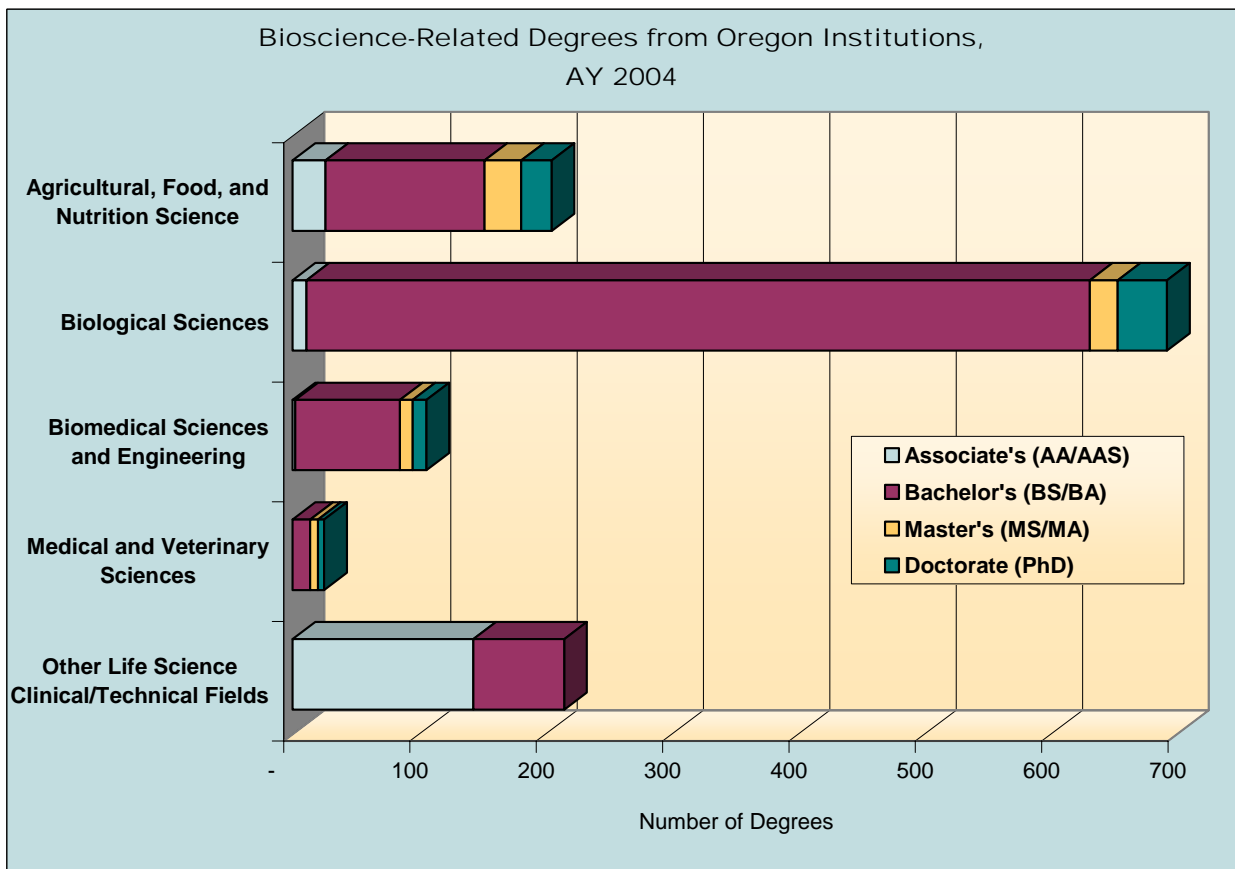
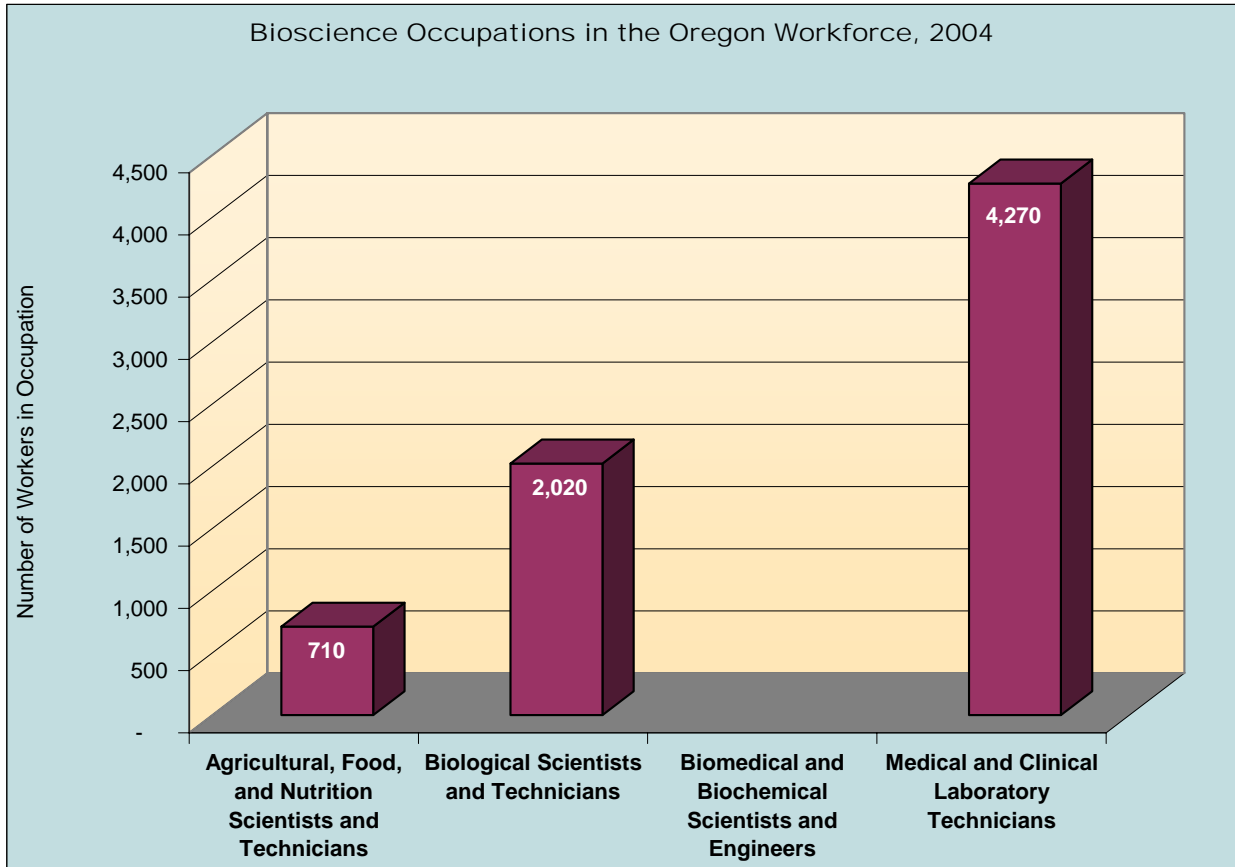
The mission of the Oregon Bioscience Association (OBA) is to promote the growth and quality of the biotechnology industry in the State of Oregon and ensure that it achieves its full economic and social potential. OBA is a nonprofit association with membership open to any company, organization, or individual with an interest in biotechnology, medical devices, or the life sciences.

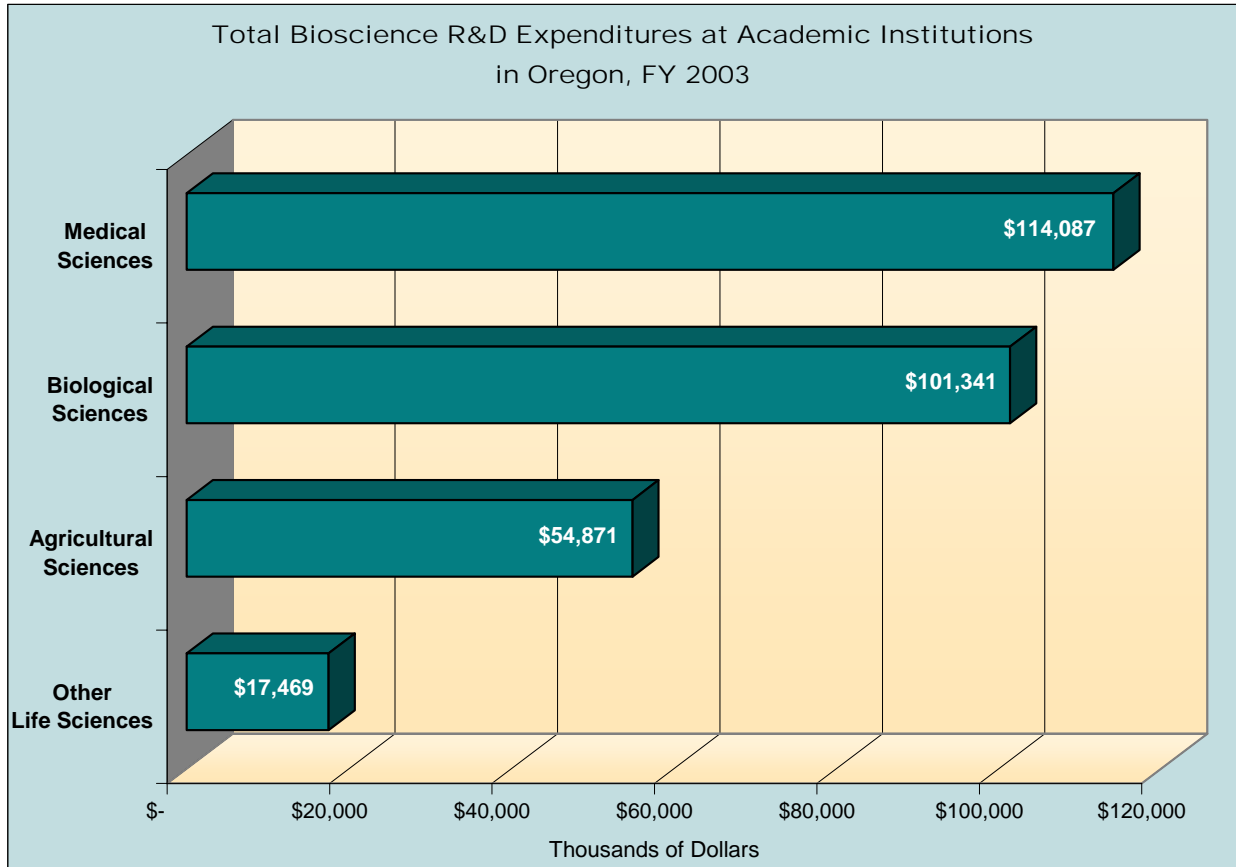
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Industry Subsector	Oregon	United States
<b>Agricultural Feedstock &amp; Chemicals</b>		
Establishments 2004	30	2,111
2001-2004 Establishment % Change	54.2%	0.4%
Employment 2004	484	104,893
2001-2004 Employment % Change	37.6%	-6.9%
Share of U.S. Employment	0.5%	100.0%
Location Quotient	0.37	n.a.
Average Annual Wage 2004	\$44,394	\$63,383
Direct-Effect Employment Multiplier	4.91	10.91
Total Employment Impact	2,377	1,212,094
<b>Drugs &amp; Pharmaceuticals</b>		
Establishments 2004	33	2,589
2001-2004 Establishment % Change	-13.2%	-0.6%
Employment 2004	702	313,207
2001-2004 Employment % Change	-8.2%	2.7%
Share of U.S. Employment	0.2%	100.0%
Location Quotient	0.18	n.a.
Average Annual Wage 2004	\$34,961	\$79,303
Direct-Effect Employment Multiplier	3.49	9.51
Total Employment Impact	2,450	2,731,321
<b>Medical Devices &amp; Equipment</b>		
Establishments 2004	278	15,190
2001-2004 Establishment % Change	4.1%	0.2%
Employment 2004	4,313	411,460
2001-2004 Employment % Change	2.8%	-3.6%
Share of U.S. Employment	1.0%	100.0%
Location Quotient	0.85	n.a.
Average Annual Wage 2004	\$42,156	\$56,449
Direct-Effect Employment Multiplier	2.61	4.56
Total Employment Impact	11,252	1,817,705
<b>Research, Testing, &amp; Medical Laboratories</b>		
Establishments 2004	237	20,565
2001-2004 Establishment % Change	7.9%	19.4%
Employment 2004	3,134	413,550
2001-2004 Employment % Change	10.7%	8.2%
Share of U.S. Employment	0.8%	100.0%
Location Quotient	0.62	n.a.
Average Annual Wage 2004	\$56,422	\$65,414
Direct-Effect Employment Multiplier	2.27	3.15
Total Employment Impact	7,113	1,272,936
<b>TOTAL PRIVATE SECTOR</b>		
Establishments 2004	113,618	8,156,137
2001-2004 Establishment % Change	3.5%	4.8%
Employment 2004	1,344,923	109,249,195
2001-2004 Employment % Change	0.1%	-0.7%
Share of U.S. Employment	1.2%	100.0%
Location Quotient	n.a.	n.a.
Average Annual Wage 2004	\$35,020	\$39,003

Source: Battelle calculations -- based on Bureau of Labor Statistics QCEW data from the Minnesota Implan Group, RIMS II Employment Multipliers from the Bureau of Economic Analysis, and the Census Bureau's Economic Census.

Note: n.a. = metric is not applicable.





	Oregon	United States	Rank
<b>University R&amp;D Expenditures, FY 2003</b>			
Total (\$ thousands)	\$436,958	\$40,104,621	27
Life Science R&D (\$ thousands)	\$293,858	\$24,062,088	27
Percent of Total R&D	67.3%	60.0%	
Life Sciences Per Capita	\$82.55	\$82.74	
Change in Life Sciences FY 1999–2003	35.5%	52.7%	
<b>NIH Support to Institutions, FY 2004</b>			
Total (\$ thousands)	\$258,047	\$22,556,459	23
Per Capita Expenditures	\$72.49	\$77.56	
Change in Expenditures FY 2000–2004	37.9%	53.2%	
<b>Higher Education Degrees in Bioscience Fields, AY 2004</b>	1,243	111,329	33
<b>Bioscience Occupations in the Workforce, 2004</b>	7,000	616,140	27